

XVI.—On the Use of the Generic Name *Ceratopogon*, Meigen (*Diptera*, Chironomidæ). By F. W. EDWARDS.

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SINCE the old genus *Ceratopogon* was broken up by Kieffer in 1901 much uncertainty has existed as to which group the old name should be applied to, different authors using the name in different senses. It is highly desirable to arrive at definite and permanent conclusions on this point, and the following note has been penned with this object in view.

The main facts, which are not in question, are these :—

The genus *Ceratopogon* was founded by Meigen in Illiger's 'Magazine' for 1803, a short diagnosis being given, and "*Tipula barbicornis*, Fab.," being the only species mentioned as belonging to the genus. The earlier name *Helea* was published in 1800 without any species being mentioned, and is now rejected by nearly all dipterists on this ground, together with the other names proposed in the "Nouvelle Classification." In his "Klassifikation" Meigen introduces a number of new species, but "*barbicornis*, Fab.," is placed among other species of which Meigen had not seen specimens as belonging either to *Corethra*, *Chironomus*, *Tanypus*, or *Ceratopogon*. He also remarks (p. 35): "Aus dieser Beschreibung [of Fabricius] folgt, dass dieser Art unter *Ceratopogon* gehöret. Ob aber Gmelin (oder vielmehr Linnée) und Schrank diese oder den oben beschriebenen *C. communis* unter ihrer *Tipula barbicornis* verstanden haben, mag ich nicht entscheiden." Later, Meigen (Syst. Besch. vi. p. 261) notes under *barbicornis* that "das Exemplar in Fabricius' Sammlung ist ein *Chironomus*, *Chir. obscurus*."

Now, since on its first introduction only a single species was mentioned as belonging to the genus, it is clear that, if the rules of zoological nomenclature are to be strictly followed, this must be regarded as the type-species. Accordingly, Kieffer has argued (Zool. Anz. xxx. p. 516) that *T. barbicornis* is the type, and that, since Meigen has informed us that Fabricius's specimen was only *Chironomus obscurus*, Mg. (which is supposed to be an *Orthocladius*), *Ceratopogon* should be used in place of *Orthocladius*.

But against this view it should be remembered (1) that Fabricius was not the author of the name *barbicornis*, and that what Linnæus meant by this name is unknown; (2) that Meigen, as he himself informs us, had not seen examples of *barbicornis*, but was relying on Fabricius's diagnosis for his

inclusion of the species in *Ceratopogon*; and (3) that many writers, with whom I emphatically agree, would in cases of misidentification take the species which an author actually had, not that which he imagined he had, as the type of a genus.

The question is, therefore, what species had Meigen before him under the name *barbicornis* in 1803? From the remarks quoted above, I think there can be practically no doubt that it was the one which in 1804 he called *C. communis*. This was doubtless the reason why Coquillett in 1910 indicated *communis* as the type-species, a course in which I consider he was perfectly right.

Kieffer, in the paper cited, maintains that the species which Meigen had in 1803 cannot be recognized, and argues from this that the real validity of the genus *Ceratopogon* can only date from Meigen's fuller work, where other species are included and a fuller diagnosis given. He quotes Meigen's work of 1818 (omitting that of 1804), where the hairy wings are referred to in the generic description, and, while rejecting *Ceratopogon* altogether, uses *Forcipomyia* in place of it for one of the hairy-winged groups, taking for type *F. ambiguus*, Mg. In more recent papers (Ann. Mus. Nat. Hung. 1917) he has reverted to the use of *Ceratopogon* for this same group, still with the type *ambiguus*, Mg.

I maintain that this course is unjustifiable for two reasons—firstly, although Meigen, in his 1804 diagnosis, mentions the hairy wings*, Latreille, in 1805, proposed the genus *Culicoides*, with the type *pulicaris*, L.; and from the table of species which Meigen gives in 1830 (Syst. Besch. vi. p. 266) it is clear that he accepts *Culicoides* as a restriction, including in it all the species with hairy wings (although he does not actually admit its generic value), thus:—

“A. Alle Schenkel einfach, wehrlos.

“ (a) Mit nackten Flügeln.

“ (b) Mit haarigen Flügeln (*Culicoides*, Latreille).”

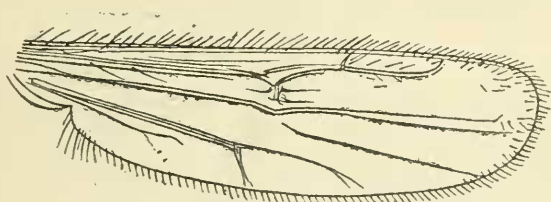
In the second place—and this is, perhaps, even more important,—Kieffer's adoption of *ambiguus* as the type is quite illegitimate if it can be discovered what Meigen meant

* Meigen also states in this diagnosis “Die Flügel parallel-dachformig” (*i. e.* held in roof-like position in rest), which is a character of the *Orthocladius* group, but not of the *Ceratopogoninae*. This might be adduced in support of the view that *Ceratopogon* should be used for *Orthocladius*; but I think it is evident that Meigen simply made a mistake on this point. He corrects the statement in 1818 to read “Flügel parallel flach aufliegend.”

by *communis*. The description of 1804 is altogether inadequate, but in 1818 he adds the information "Alle Schenkel einfach, wehrlos," and in 1830 "Mit nackten Flügeln." The name *Ceratopogon* must, therefore, be used for one of the groups with bare or practically bare wings.

In his original description of *C. communis* (1804) Meigen says "Man findet sie im Sommer sehr häufig auf Schirmgewächsen." This habitat agrees with that of *C. pavidus*, Winn., and its allies, several species of which occur in great numbers on flower-heads of *Angelica*, but not with that of the other bare-winged groups, the females of which are predaceous and are only seldom found on flowers. Malloch, in his 'Chironomidæ of Illinois' (1915), has adopted the name *Ceratopogon* for this group of species (which Kieffer includes under the genera *Atrichopogon* and *Kempia*), and I was at first inclined to follow him in this respect.

However, in order to make quite sure, if possible, of the identity of *C. communis*, I wrote to Mons. Séguy, of the Paris Museum, asking him for information as to Meigen's type, if it should be in existence. His report was surprising, but decisive, as from his notes and the carefully drawn sketch of the wing of the type male which he sent (reproduced herewith)



Ceratopogon communis, ♂. Drawn by E. Séguy.

it is clear that *C. communis* differs in some respects from all the species described by Winnertz, and will not fit into any of the genera into which the group has been divided by Kieffer, though it shows relations with several.

The genus *Ceratopogon* must therefore for the present include only the single species *communis*, Mg., and may be diagnosed as follows, from M. Séguy's information:—

CERATOPOGON (Meigen, 1803), Edwards, 1920.

♂. Claws simple, equal. No empodia. Femora slender, unarmed. Eyes quite bare. Wings with microscopic pubescence (microtrichia) over the whole surface, and with a few

suberect macrotrichia round the tip and in the second radial cell. Costa extending beyond two-thirds of the wing-length; two radial cells, both rather elongate and about equal in length. Media sessile, forking at level of *r-m* cross-vein. Cubitus ("postical" of Kieffer) with the base of its fork proximal to that of the media. Anal vein bent some distance before its tip, a rather indistinct fold arising from the bend, giving an appearance of forking (as in *Palpomyia*, *Bezzia*, &c.).

The genus *Ceratopogon* will fitly take its place among the group of small genera which are intermediate in some respects between the two main groups of the subfamily, agreeing in habits with *Kempia* and *Atrichopogon*, but in structure approaching nearer to *Johannsenomyia* and *Stilobezzia*. From the former of these it differs in the shorter, equal, radial cells and the presence of macrotrichia at the tip of the wing, and from the latter in the sessile media and in some other points.

XVII.—*Some new or little-known Gomphine Dragonflies from South America.* By HERBERT CAMPION.

[Plates VI. & VII.]

WHILE engaged from time to time in identifying dragonflies from British Guiana, I have found it necessary to consider related species from other parts of the Neotropical Region. Particulars of certain members of the subfamily Gomphinæ which have been studied in this way are now placed on record.

Gomphoides dentatus, Selys.

Aphylla dentata, Selys, Bull. Acad. Belg. (2) vii. p. 547 (1859).

I have pleasure in acknowledging my indebtedness to Monsieur G. Severin, Conservateur au Musée Royal d'Histoire Naturelle de Belgique, for his great kindness in allowing me to examine the original material of this species, besides preparing for me photographs of the wings and anal appendages of the male type (Pl. VI. figs. 1 & 2). The material in question consists of (1) a male, the type of the species, through the abdomen of which a fine skewer has been passed, to give it additional support; (2) a female, also skewered, which may be conspecific with the male; and